(c) REMARKS

The pending claims are 1, 4-7, 9-11, 14 and 15 of which claims 1, 4, 14 and 15 are in independent form. Claims 2, 3, 8, 12 and 13 have been cancelled. Claims 1, 4, 14 and 15 have been amended to incorporate the subject matter of claims 2 and 3 (8 and 13) to define more clearly what Applicants regard as the invention.

The Examiner has rejected claim 12 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 12 has been cancelled to expedite prosecution, although a "pencil of light rays" clearly refers to a pencil-shaped beam of light rays.

Claims 1, 4, 7 and 9 were rejected as anticipated by Forrest '226. Claims 14 and 15 were rejected as either anticipated by, or as obvious over, Forrest '226. Claims 2, 8 and 10 were rejected as obvious over Forrest '226 in view of Wilson '835. Claims 3 and 13 were deemed obvious over Forrest '226 in view of Matthies '303. Claims 5 and 11 were deemed obvious over Forrest '226 in view of Biebuyck '994. Claim 6 was rejected as obvious over Forrest '226 in view of Biebuyck '994 and further in view of Rawlings '434. The Examiner argues Forrest discloses all the structural elements of claims 1, 4, 14 and 15. That rejection is respectfully traversed.

There are substantial differences between Forrest and the present claimed invention. With regard to Fig. 2C of Forrest, the Examiner notes 113 is a light-emitting layer; 112 is a light-gathering layer and 111 is a light-shielding layer having an opening. Applicants note in column 3 and column 4 of Forrest, layer 111 is disclosed to be a reflective layer for reflecting light guided by layer 112 and to direct the light eventually through opening 115. In Forrest column 4, lines 28 and 29, it is disclosed that reflective

layer 111 is made of a highly reflective multilayer dielectric stock (emphasis supplied). Accordingly, reflective layer 111 of Forrest will reflect not only light impinging from within the device, but also external light. In contrast, in instant paragraph [0033] it is disclosed that the light-shielding layer 17 comprises a light-absorbing material (emphasis supplied) so external light incident on regions other than the openings can be prevented from being reflected. This feature is found in the instant claims.

In addition, Applicants note that in column 4 of Forrest, the wave-guiding layer 112, which is said to function as a light-gathering layer, is a transparent dielectric material having, as disclosed in column 2 , a top surface, a bottom surface and at least three sides with one side being less than 90° and the remainder of the sides perpendicular to the substrate. The emitted light is reflected off the reflective layer and the sides of the waveguide layer to be directed eventually through an opening in the reflective layer. It is also noted that in the present claimed invention, the light-gathering structure includes a lens having a focus and each opening of the light-shielding layer is arranged in the vicinity of the focus. Forrest fails to disclose or suggest this feature.

With regard to the art rejection, the MPEP makes clear that, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131 at 2100-73 (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." MPEP § 2131 at 2100-73 (quoting

Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)).

Forrest does not recognize the problem of color purity degradation resulting from differences in observation position. The arrangement of elements in Forrest as illustrated in Figure 2C is not the same as the microcavity structures of the present invention. Unlike the multi-layer dielectric mirror layer 14 and the reflective cathodes 11 that form optical resonator structures, in Forrest the light emitting device 100 is comprised of a waveguiding layer 112 which has "a top surface, a bottom surface, and at least three sides", arranged so that any light rays emitted from the OLED 113 are multiply-reflected off the different surfaces before being directed out through the opening 115. *See Forrest*, Column 3, lines 38-40.

The differences in structure between the configuration of Forrest and the present claimed invention results in a difference of light-emission efficiency. In Forrest, the light ray emitted from OLED 113 is reflected off the various surfaces 111, 113 and 217 several times prior to being emitted through opening 115. *See* Figures 2A-2C. This multiple reflection causes a decrease in light-emission efficiency because, regardless of the angle of emission, all of the light rays in Forrest are eventually reflected out. Indeed, this reference is silent as to blocking any of diagonal rays that may be emitted.

In contrast, by having the light-shielding layer and the light-gathering structure, respectively, overlying the electroluminescent device as, for example, illustrated in Figure 1, the present invention overcomes the obstacle of color purity degradation by taking into account color shift due to diagonal light. Figure 1 illustrates how light rays

emitted in a diagonal direction, thus having a shorter wavelength, are spatially isolated according to the present configuration. Specifically, a light ray 20, emitted in the front direction, is transmitted through opening 16 to the outside. However, light ray 18, emitted diagonally, is blocked by the overlying light-shielding layer 17, and therefore not transmitted outside the display. *See* specification, pages 11-12, paragraph [0032]. In contrast, in the configuration of Forrest, all of the light rays emitted from OLED 113 are repeatedly reflected before allowed to be transmitted outside the display 100, thus failing to account for the effect of diagonal light on color purity. Accordingly, Applicants respectfully submit that because Forrest does not even recognize the problem of degrading color purity due to changes in observation position, it cannot teach or suggest the claimed solution. Moreover, none of the secondary references supply that which is missing from Forrest et al.

In view of the foregoing amendments and remarks, Applicants respectfully request entry of the amendment, favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

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